FUNCRECOL Upgraded Standard Photopolymer Resin

FUNCRECOL 3D Printer Resin User Manual

Model: Upgraded Standard Photopolymer Resin

1. Product Overview

The FUNCRECOL Upgraded Standard Photopolymer Resin is engineered for high-precision 3D printing, compatible with 4K/8K/10K LCD/DLP/MSLA resin 3D printers. This 405nm UV-curing resin offers fast curing times, excellent detail reproduction, and improved adhesion for reliable printing results.

Image 1.1: FUNCRECOL 3D Printer Resin bottle and a sample 3D print.

Key Features:

- **Optimized for Fine Details:** Designed to reproduce intricate details with exceptional precision.
- **Improved Adhesion:** Ensures strong adherence to the build platform, reducing print failures.
- **High Compatibility:** Works with a wide range of LCD/DLP 3D printers.
- **Fast Curing Time:** Accelerates the printing process without compromising quality.
- **Quality Assurance:** Manufactured with high quality control for consistent results.
- **Low Odor:** Formulated for a more pleasant printing experience.
- **Low Shrinkage:** Achieves high precision prints with minimal deformation.
- **Easy to Shape:** Facilitates effortless post-processing and model formation.

Image 1.2: Overview of FUNCRECOL Upgraded Standard Resin features.

2. Setup and Compatibility

Before using the FUNCRECOL resin, ensure your workspace is prepared and you understand the compatibility requirements.

2.1 Compatibility

This resin is highly compatible with most 2K, 4K, 8K, 10K, 12K, and 14K LCD/DLP/MSLA resin 3D printers operating at a 405nm UV wavelength.

Image 2.1: FUNCRECOL resin's wide compatibility with various 3D printer brands.

2.2 Workspace Preparation

1. Ensure your printing area is well-ventilated.
2. Maintain a room temperature of 25°C (77°F) or higher for optimal resin performance.
3. Prepare necessary safety equipment, including gloves and a mask, to avoid direct skin contact and inhalation of fumes.
4. Keep the resin away from direct light sources, especially UV light.

3. Operating Instructions

Follow these guidelines for optimal printing results with FUNCRECOL resin.

3.1 Before Printing

1. **Shake Well:** Before each use, shake the resin bottle thoroughly for at least 1 minute to ensure all components are

evenly mixed.

2. **Temperature:** For best results, use the resin at a temperature of 25°C (77°F) or higher.
3. **Pouring:** Carefully pour the desired amount of resin into the printer's resin vat.

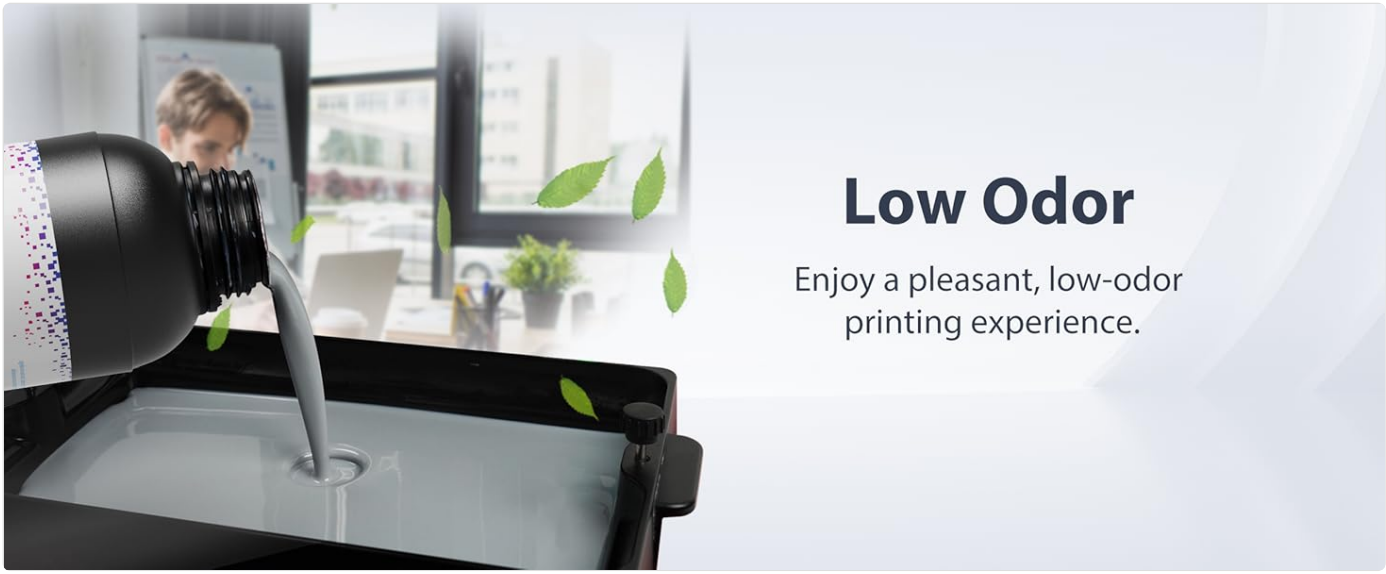

Image 3.1: Pouring resin into the printer vat.

3.2 Printing Process

1. **Exposure Settings:** Calibrate your printer's exposure settings according to the specific requirements of your 3D printer model and the desired layer height. FUNCRECOL resin is designed for fast curing, which may allow for shorter exposure times.
2. **Adhesion:** The resin features improved adhesion properties to ensure prints stick firmly to the build platform, minimizing print failures.
3. **Precision:** Expect high precision and the ability to reproduce fine details due to the resin's optimized formulation.
4. **Flowability:** The resin's low viscosity and high flowability contribute to reduced curing times and easier model formation.

Image 3.2: Resin flowability and its benefits during printing.

3.3 Post-Processing

1. **Cleaning:** After printing, clean the printed model thoroughly using isopropyl alcohol (IPA) or a dedicated resin cleaner.
2. **Curing:** Post-cure the cleaned model under a UV light source to achieve maximum hardness and strength.
3. **Support Removal:** The resin is designed to be easy to shape, facilitating the removal of supports.

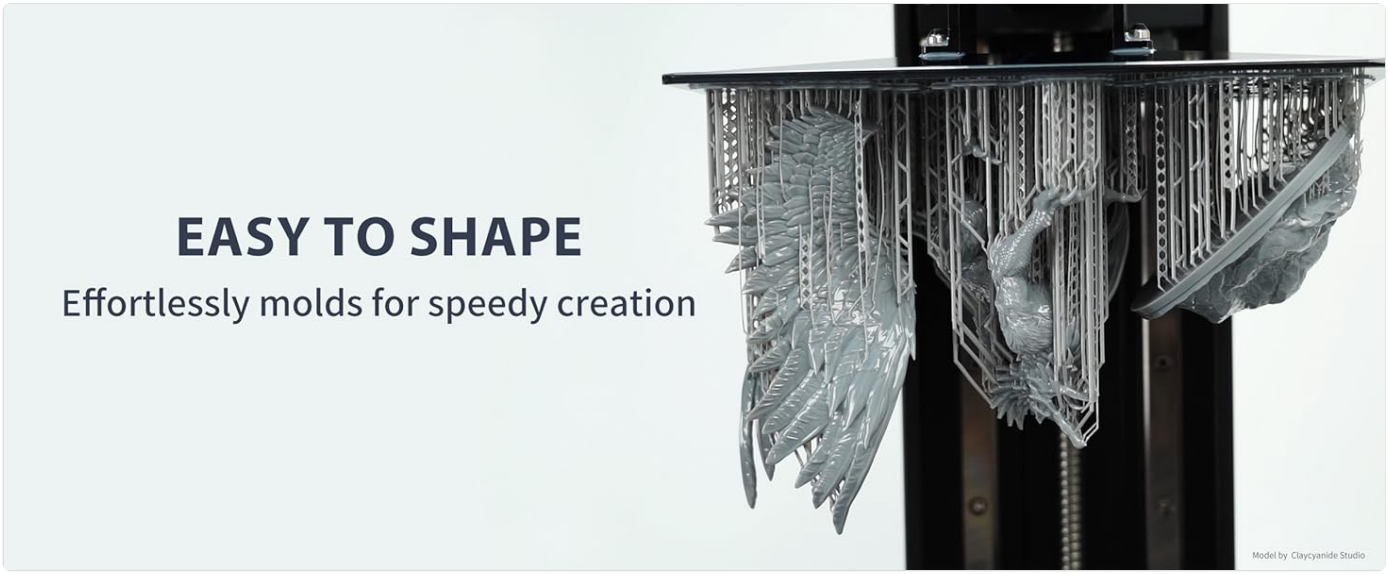

Image 3.3: Ease of shaping and support removal for printed models.

4. Maintenance and Storage

Proper maintenance and storage are crucial for the longevity and performance of your resin.

4.1 Resin Storage

1. **Sealed Container:** Always store unused resin in its original sealed bottle or an opaque, airtight container.
2. **Cool, Dark Place:** Keep the resin in a cool, dry place, away from direct sunlight and any UV light sources.
3. **Do Not Reuse:** Do not pour used or uncured resin from the vat back into the original bottle, as this can contaminate the fresh resin.

4.2 Safety Precautions

1. **Personal Protective Equipment (PPE):** Always wear gloves and a mask when handling resin to avoid direct skin contact and inhalation of fumes.
2. **Ventilation:** Ensure adequate ventilation in your printing area.
3. **Keep Out of Reach:** Keep the resin out of reach of children and pets.
4. **No Ingestion:** Do not ingest the resin. Keep it away from food and drinks.
5. **Eye Contact:** Avoid contact with eyes. In case of contact, flush immediately with plenty of water and seek medical attention.

Image 4.1: Important safety and storage tips for FUNCRECOL resin.

5. Troubleshooting

This section addresses common issues you might encounter during 3D printing with resin.

Problem	Possible Cause	Solution
Prints not sticking to build plate	Insufficient exposure time; build plate not level; low room temperature; dirty build plate.	Increase bottom exposure time; re-level build plate; ensure room temperature is 25°C (77°F) or higher; clean build plate thoroughly.
Failed prints or partial prints	Incorrect exposure settings; insufficient supports; resin not mixed well; FEP film damage.	Adjust exposure time; add more or thicker supports; shake resin bottle thoroughly before use; inspect and replace FEP film if damaged.

Problem	Possible Cause	Solution
Poor detail or blurry prints	Over-exposure; dirty LCD screen; unstable printer.	Decrease exposure time; clean LCD screen carefully; ensure printer is on a stable surface.
Resin curing too slowly	Low UV light intensity; low room temperature.	Check printer's UV light source; ensure room temperature is optimal.

6. Product Specifications

Detailed specifications for the FUNCRECOL Upgraded Standard Photopolymer Resin.

- **Product Type:** Upgraded Standard Photopolymer Resin
- **Curing Wavelength:** 405nm UV
- **Compatibility:** LCD/DLP/MSLA 3D Printers (4K/8K/10K/12K/14K)
- **Color:** Gray (as per current product variant)
- **Weight:** 1000g (2.2 Pounds)
- **Package Dimensions:** 9.7 x 3.7 x 3.7 inches
- **Manufacturer:** FUNCRECOL
- **ASIN:** B0CZ6T1RG7
- **First Available:** March 27, 2024

Image 6.1: Demonstration of improved molding accuracy.

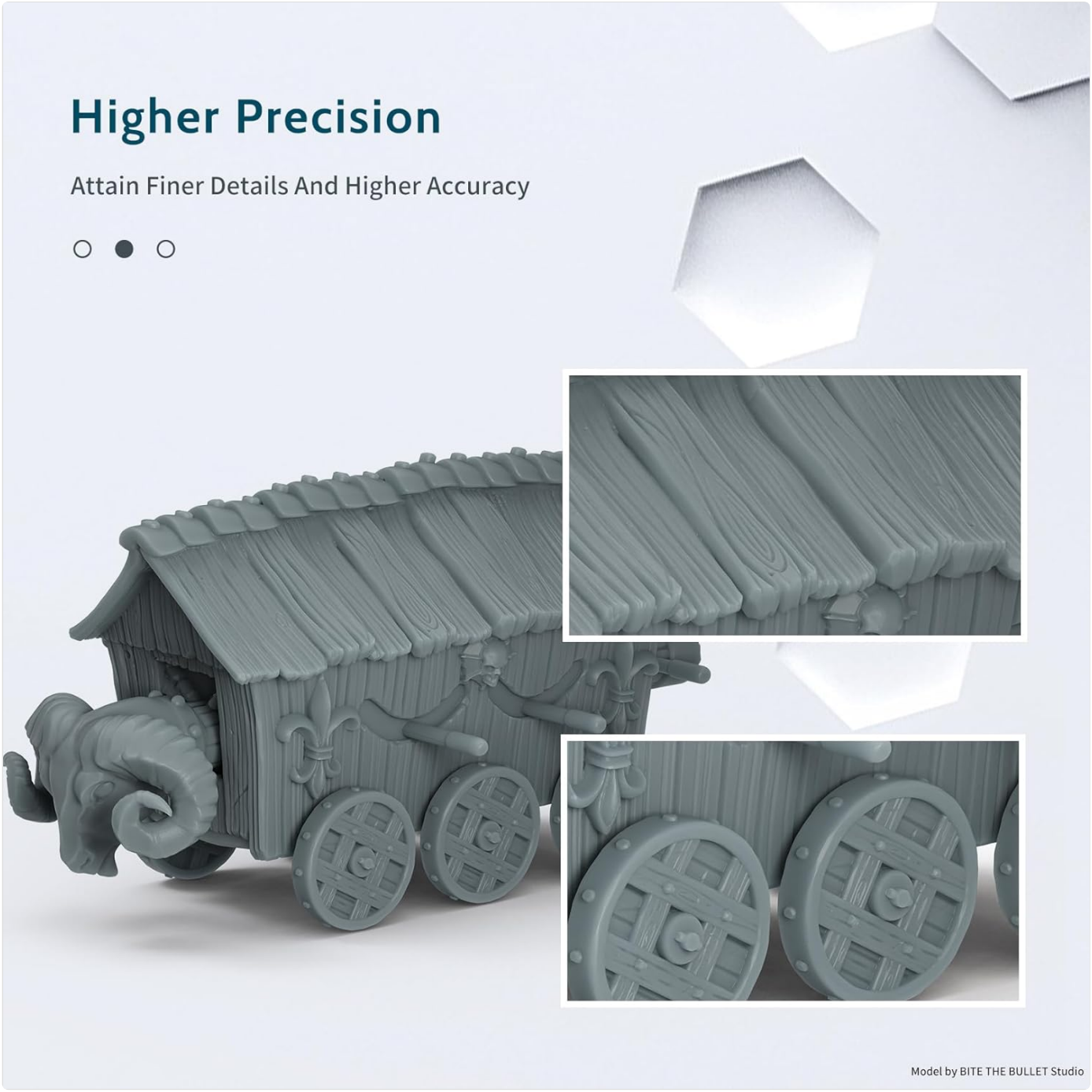

Image 6.2: Examples of higher precision and finer details achievable with the resin.

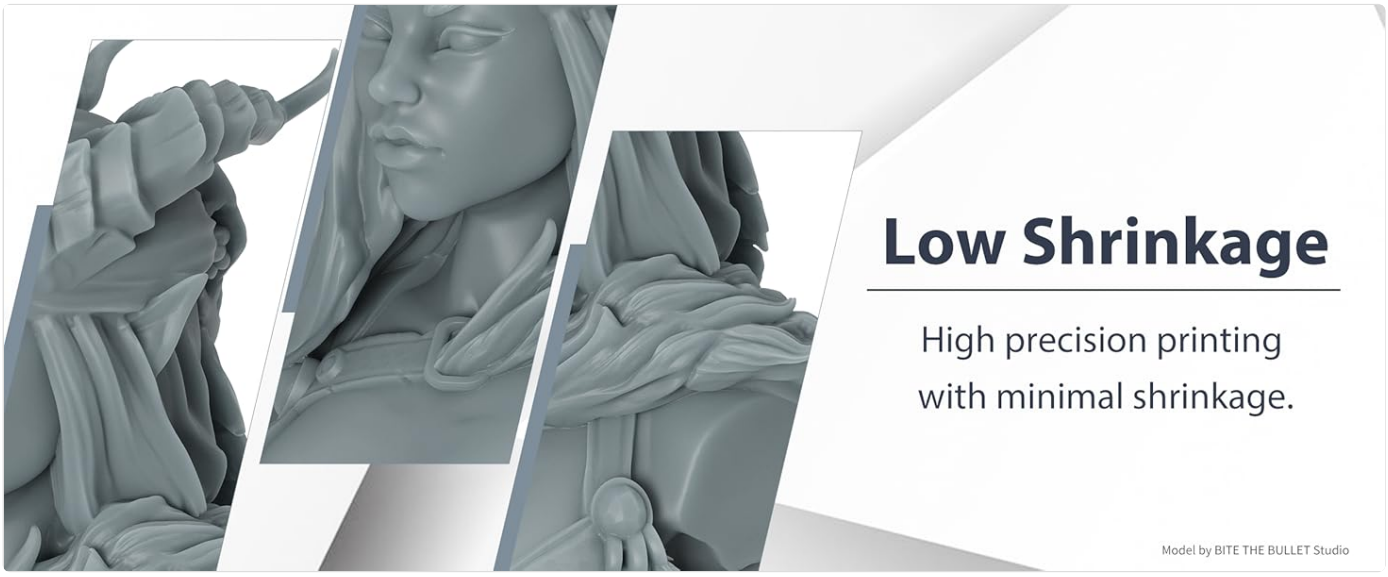

Image 6.3: Visual representation of low shrinkage in printed models.

7. Warranty and Support

For any questions, concerns, or support regarding your FUNCRECOL 3D Printer Resin, please contact the manufacturer directly.
While specific warranty details are not provided in this manual, FUNCRECOL maintains a high level of quality control and consistency in resin production. For product support, please refer to the contact information provided on the product packaging or the official FUNCRECOL website.
You can also visit the official FUNCRECOL store on Amazon for more information and product updates:FUNCRECOL Store